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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,735	02/25/2002	Matthew P.J. Baker	GB 010028	8311

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EXAMINER

TORRES, JOSEPH D

ART UNIT PAPER NUMBER

2133

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,735

Applicant(s)

BAKER ET AL.

Examiner

Joseph D. Torres

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because "signaling" in line 11 is misspelled. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claims 1-3 and 6-9 are objected to because of the following informalities:
"signaling" is misspelled in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites, "thereby enabling continued transmission of data packets on at least one channel while error correction information is transmitted on another channel", which is indefinite since it is not clear that "enabling continued transmission of data packets on at least one channel while error correction information is transmitted on another channel" requires that "transmission of data packets on at least one channel while error correction information is transmitted on another channel", that is; any multi-channel communication system is certainly enabled for "transmission of data packets on at least one channel while error correction information is transmitted on another channel", but it

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may be that "transmission of data packets on at least one channel while error correction information is transmitted on another channel" may never take place.

Claims 4, 6 and 8 recite similar language as in claim 1.

Claims 2, 3, 5, 7 and 9 depend from claims 1, 4, 6 and 8; hence inherit the deficiencies of claims 1, 4, 6 and 8.

Claim 1 recites the limitation "that logical channel" in line 16. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "that logical channel" in line 14. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the respective logical channels" in line 14. There is insufficient antecedent basis for this limitation in the claim. In addition, it is impossible to determine what "the respective logical channels" refer to since there is not a clear association of all of the logical channels to other elements in the claim language.

Claim 8 recites the limitation "that logical channel" in line 15. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen; Jari et al. (US 6570860 B2, hereafter referred to as Hamalainen) in view of Ericsson (WO 200049760 A1, hereafter referred to as Ericsson).

35 U.S.C. 103(a) rejection of claims 1-9.

Hamalainen teaches a radio communication system comprising a primary station having means for transmitting a series of data packets to a secondary station (Base Stations BTS1-BTS9 in Figure 1 of Hamalainen are primary stations for transmitting a series of data packets to secondary stations Mobile Services Switching Centres MSC), and a means for transmitting the series of data packets via a plurality of logical channels (the Abstract in Hamalainen teach the use of one or more time-slots allocated to mobile stations; Note: a time-slot is a logical channel and all of the logical channel time-slots allocated to mobile stations for a particular Mobile Services Switching Centre MSC are allocated to the MSC), thereby enabling continued transmission of data packets on at least one channel while error correction information is transmitted on another channel (Note: since there are multiple logical channel time-slots the transmission system is

enabled to be able to transmit data packets on at least one channel while error correction information is transmitted on another channel), and handover means for transferring transmission of at Least two of the Logical channels to another primary station, wherein the handover means comprises means for transferring each of the at least two logical channels individually to another primary station in response to receiving acknowledgement of successful reception of the most recently-transmitted packet on a Logical channel, regardless of the status of the other Logical channels (Figure 9 in Hamalainen teaches a handover means for transferring transmission of at least two of the logical channels to another primary station Base Station BSS [new] in Figure 9, wherein the handover means comprises means for transferring each of the at least two logical channels individually to another primary station Base Station BSS in response to receiving acknowledgement, Hnadover REQ ACK of successful reception of the most recently-transmitted packet Handover REQ on a Logical channel, regardless of the status of the other Logical channels).

However Hamalainen does not explicitly teach the specific use of a means wherein the secondary station has means for determining whether each packet is received correctly and means for signaling this determination to the primary station, and the primary station has means for transmitting error correction information relating to a data packet which the secondary station has not received correctly to assist the secondary station in decoding that packet.

Ericsson, in an analogous art, teaches a means wherein the secondary station has means for determining whether each packet is received correctly and means for

signaling this determination to the primary station, and the primary station has means for transmitting error correction information relating to a data packet which the secondary station has not received correctly to assist the secondary station in decoding that packet (see Abstract in Ericsson; Note: an incremental redundancy hybrid ARQ protocol is a means wherein the secondary station has means for determining whether each packet is received correctly and means for signaling this determination to the primary station, and the primary station has means for transmitting error correction information relating to a data packet which the secondary station has not received correctly to assist the secondary station in decoding that packet).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hamalainen with the teachings of Ericsson by including use of an incremental redundancy hybrid ARQ protocol. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of an incremental redundancy hybrid ARQ protocol would have provided the opportunity to improve data integrity.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dahlin; Jan E. A. S. (US 5042082 A) teaches a base station and mobile station comprising means for communication and performing handoff. Mazawa; Shiro et al. (US 6628631 B1) teaches a handoff control method and apparatus in a

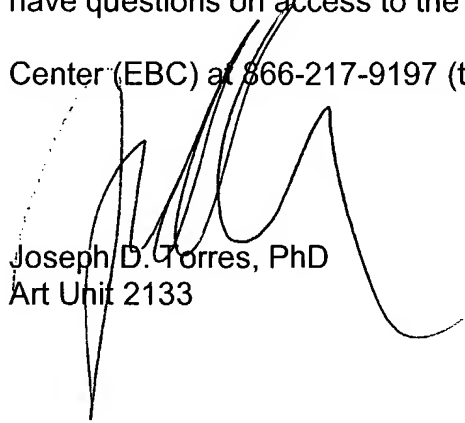
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mobile communication system which enable a mobile station to simultaneously use a plurality of radio channels to communicate with base stations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (703) 308-7066. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (703) 305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph D. Torres, PhD
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